<u>Amendments to the Claims:</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims:</u>

1.-9. (canceled).

10.   (Currently Amended)   A speech signal decoding apparatus ~~characterized by~~ comprising:

a plurality of decoding means for decoding information containing at least a sound source signal, a gain, and filter coefficients from a received bit stream;

identification means for identifying voiced speech and unvoiced speech of a speech signal using the decoded information<u>, at least the unvoiced speech containing a background noise</u>;

smoothing means for performing smoothing processing based on the decoded information for at least either one of the decoded gain and the decoded filter coefficients in the speech ~~signal with a background noise in at least the unvoiced speech~~ identified by said identification means <u>in order to provide enhanced coding quality for at least the unvoiced speech with the background noise</u>~~regardless of whether or not an error occurs in said decoded gain or decoded filter coefficients~~;

means for obtaining an excitation signal by multiplying the decoded sound source signal by the <u>decoded</u> ~~decoding~~ gain after performing the smoothing processing; and

means for decoding the speech signal by driving a filter having the decoded filter coefficients by the excitation signal obtained from the means for obtaining.

11.   (Currently Amended) <u>The</u> ~~An~~ apparatus <u>as recited in</u> ~~according to~~ claim 10, wherein

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said apparatus further comprises classification means for classifying unvoiced speech in accordance with the decoded information, and

said smoothing means performs smoothing processing in accordance with a classification result of said classification means for at least either one of the decoded gain and the decoded filter coefficients in the unvoiced speech identified by said identification means.

12. (Currently Amended) The ~~An~~ apparatus as recited in ~~according to~~ claim 10, wherein said identification means performs identification operation using a value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

13. (Currently Amended) The ~~An~~ apparatus as recited in ~~according to~~ claim 11, wherein said classification means performs classification operation using a value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

14. (Currently Amended) The ~~An~~ apparatus as recited in ~~according to~~ claim 10, wherein

said decoding means decodes information containing pitch periodicity and a power of the speech signal from the received bit stream, and

said identification means performs identification operation using at least either one of the decoded pitch periodicity and the decoded power output from said decoding means.

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15.   (Currently Amended) ~~The~~An apparatus <u>as recited in</u> ~~according to~~ claim 11, |
wherein

said decoding means decodes information containing pitch periodicity and a power of
the speech signal from the received bit stream, and

said classification means performs classification operation using at least either one of
the decoded pitch periodicity and the decoded power output from said decoding means.

16.   (Currently Amended) ~~The~~An apparatus <u>as recited in</u> ~~according to~~ claim 10, |
wherein

said apparatus further comprises estimation means for estimating pitch periodicity and
a power of the speech signal from the excitation signal and the decoded speech signal, and

said identification means performs identification operation using at least either one of
the estimated pitch periodicity and the estimated power output from said estimation means.

17.   (Currently Amended) ~~The~~An apparatus <u>as recited in</u> ~~according to~~ claim 11, |
wherein

said apparatus further comprises estimation means for estimating pitch periodicity and
a power of the speech signal from the excitation signal and the decoded speech signal, and

said classification means performs classification operation using at least either one of
the estimated pitch periodicity and the estimated power output from said estimation means.

18.   (Currently Amended) ~~The~~An apparatus <u>as recited in</u> ~~according to~~ claim 11, |
wherein said classification means classifies unvoiced speech by comparing a value obtained
by the decoded filter coefficients from said decoding means with a predetermined threshold.

19.   (Canceled)

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20.   (Currently Amended)   A speech signal decoding/encoding apparatus ~~characterized by~~ comprising:

speech signal encoding means for encoding a speech signal by expressing the speech signal by at least a sound source signal, a gain, and filter coefficients;

a plurality of decoding means for decoding information containing a sound source signal, a gain, and filter coefficients from a received bit stream output from said speech signal encoding means;

identification means for identifying voiced speech and unvoiced speech of the speech signal using the decoded information, at least the unvoiced speech containing a background noise;

smoothing means for performing smoothing processing based on the decoded information for at least either one of the decoded gain and the decoded filter coefficients in the speech ~~signal with a background noise in at least the unvoiced speech~~ identified by said identification means in order to provide enhanced coding quality for at least the unvoiced speech with the background noise ~~regardless of whether or not an error occurs in said decoded gain or decoded filter coefficients~~;

means for obtaining an excitation signal by multiplying the decoded sound source signal by the decoded ~~decoding~~ gain after performing the smoothing processing; and

means for decoding the speech signal by driving a filter having the decoded filter coefficients by the excitation signal obtained from the means for obtaining.

21. (Currently Amended)   A speech signal decoding method ~~characterized by~~ comprising the steps of:

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decoding information containing at least a sound source signal, a gain, and filter coefficients from a received bit stream;

identifying voiced speech and unvoiced speech of a speech signal using the decoded information, at least the unvoiced speech containing a background noise;

performing smoothing processing based on the decoded information for at least either one of the decoded gain and the decoded filter coefficients, said smoothing operation performed in the identified speech in order to provide enhanced coding quality for at least the unvoiced speech with the background noise~~signal with a background noise in at least the unvoiced speech, said smoothing being performed regardless of whether or not an error occurs in said decoded gain or decoded filter coefficients~~; and

decoding the speech signal by driving a filter having the decoded filter coefficients by an excitation signal obtained by multiplying the decoded sound source signal by the decoded gain using a result of the smoothing processing.

22.   (Currently Amended) The~~A~~ method as recited in ~~according to~~ claim 21, wherein

the method further comprises the step of classifying unvoiced speech in accordance with the decoded information, and

the step of performing smoothing processing comprises the step of performing smoothing processing in accordance with a classification result of the unvoiced speech for at least either one of the decoded gain and the decoded filter coefficients in the unvoiced speech.

23.   (Currently Amended) The~~A~~ method as recited in ~~according to~~ claim 21, wherein the identifying step comprises the step of performing identification operation using a value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

24.   (Currently Amended) The ~~A~~ method as recited in ~~according to~~ claim 2, wherein the classifying step comprises the step of performing classification operation using a

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value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

25. (Currently Amended) The~A~ method as recited in ~according to~ claim 21, wherein

the decoding step comprises the step of decoding information containing pitch periodicity and a power of the speech signal from the received bit stream, and

the identifying step comprises the step of performing identification operation using at least either one of the decoded pitch periodicity and the decoded power.

26. (Currently Amended) The~A~ method as recited in ~according to~ claim 22, wherein

the decoding step comprises the step of decoding information containing pitch periodicity and a power of the speech signal from the received bit stream, and

the classifying step comprises the step of performing classification operation using at least either one of the decoded pitch periodicity and the decoded power.

27. (Currently Amended) The~A~ method as recited in ~according to~ claim 21, wherein

the method further comprises the step of estimating pitch periodicity and a power of the speech signal from the excitation signal and the decoded speech signal, and

the identifying step comprises the step of performing identification operation using at least either one of the estimated pitch periodicity information and the estimated power.

28. (Currently Amended) The~A~ method as recited in ~according to~ claim 22, wherein

the method further comprises the step of estimating pitch periodicity and a power of the speech signal from the excitation signal and the decoded speech signal, and

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the classifying step comprises the step of performing classification operation using at least either one of the estimated pitch periodicity and the estimated power.

29.   (Currently Amended) The~A method as recited in according to claim 22, wherein the classifying step comprises the step of classifying unvoiced speech by comparing a value obtained by the decoded filter coefficients with a predetermined threshold.

30.   (New) The apparatus as recited in claim 10 wherein said plurality of decoding means includes means for decoding a power of said speech signal and said identification means identifies voiced speech and unvoiced speech of the speech signal using the decoded information and the power of the speech signal.

31.   (New) The apparatus as recited in claim 20 wherein said plurality of decoding means includes means for decoding a power of said speech signal and said identification means identifies voiced speech and unvoiced speech of the speech signal using the decoded information and the power of the speech signal.

32.   (New) The method as recited in claim 21 wherein said decoding step further decodes a power of said speech signal and said identifying step identifies the voiced speech and unvoiced speech of the speech signal using the decoded information and the power of the speech signal.

33.   (Currently Amended) A speech signal decoding apparatus comprising:

a plurality of decoding devices for decoding information containing at least a sound source signal, a gain, and filter coefficients from a received bit stream;

an identification device for identifying voiced speech and unvoiced speech of a speech signal using the decoded information, at least the unvoiced speech containing a background noise;

a smoothing device for performing smoothing processing based on the decoded information for at least either one of the decoded gain and the decoded filter coefficients in

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the speech identified by said identification device in order to provide enhanced coding quality for at least the unvoiced speech with the background noise;

a multiplier device for generating an excitation signal by multiplying the decoded sound source signal by the <u>decided</u> ~~decoding~~ gain after performing the smoothing processing; and

a decoder for decoding the speech signal by driving a filter having the decoded filter coefficients by the excitation signal.

34.   (New) The apparatus as recited in claim 33, wherein

said apparatus further comprises classification device for classifying unvoiced speech in accordance with the decoded information, and

said smoothing device performs smoothing processing in accordance with a classification result of said classification device for at least either one of the decoded gain and the decoded filter coefficients in the unvoiced speech identified by said identification device.

35.   (New) The apparatus as recited in claim 33, wherein said identification device performs an identification operation using a value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

36.   (New) The apparatus as recited in claim 34, wherein said classification device performs a classification operation using a value obtained by averaging for a long term a variation amount based on a difference between the decoded filter coefficients and their long-term average.

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37.   (New) The apparatus as recited in claim 33, wherein

said decoding device decodes information containing pitch periodicity and a power of the speech signal from the received bit stream, and

said identification device performs an dentification operation using at least either one of the decoded pitch periodicity and the decoded power output from said decoding means.

38.   (New) The apparatus as recited in claim 34, wherein

said decoding device decodes information containing pitch periodicity and a power of the speech signal from the received bit stream, and

said classification device performs a classification operation using at least either one of the decoded pitch periodicity and the decoded power output from said decoding device.

39.   (New) The apparatus as recited in claim 33, wherein

said apparatus further comprises an estimation device for estimating pitch periodicity and a power of the speech signal from the excitation signal and the decoded speech signal, and

said identification device performs an identification operation using at least either one of the estimated pitch periodicity and the estimated power output from said estimation device.

40.   (New) The apparatus as recited in claim 34, wherein

said apparatus further comprises an estimation device for estimating pitch periodicity and a power of the speech signal from the excitation signal and the decoded speech signal, and

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said classification device performs a classification operation using at least either one of the estimated pitch periodicity and the estimated power output from said estimation device.

41. (New) The apparatus as recited in claim 34, wherein said classification device classifies unvoiced speech by comparing a value obtained by the decoded filter coefficients from said decoding device with a predetermined threshold.

42. (New) The apparatus as recited in claim 33 wherein said plurality of decoding devices includes a decoding device for decoding a power of said speech signal and said identification device identifies voiced speech and unvoiced speech of the speech signal using the decoded information and the power of the speech signal.

43. (Currently Amended) A speech signal decoding/encoding apparatus comprising:

a speech signal encoding device for encoding a speech signal by expressing the speech signal by at least a sound source signal, a gain, and filter coefficients;

a plurality of decoding devices for decoding information containing a sound source signal, a gain, and filter coefficients from a received bit stream output from said speech signal encoding device;

an identification device for identifying voiced speech and unvoiced speech of the speech signal, using the decoded information, at least the unvoiced speech containing a background noise;

a smoothing device for performing smoothing processing based on the decoded information for at least either one of the decoded gain and the decoded filter coefficients in

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the speech identified by said identification device in order to provide enhanced coding quality for at least the unvoiced speech with the background noise;

a multiplier device for generating an excitation signal by multiplying the decoded sound source signal by the decoded decoding gain after performing the smoothing processing; and

a decoder for decoding the speech signal by driving a filter having the decoded filter coefficients by the excitation signal.

44. (New) The apparatus as recited in claim 43, wherein said plurality of decoding devices includes a decoding device for decoding a power of said speech signal and said identification device identifies voiced speech and unvoiced speech of the speech signal using the decoded information and the power of the speech signal.

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